

REMARKS

This application is amended in a manner to place it in condition for allowance.

Claims 44, 73 and 79 are amended. Support for the amended claims may be found, for example, at page 8, line 18 to page 9, line 16 and page 6, lines 9-26 of the present specification.

Claims 43, 77 and 78 are cancelled.

Claims 23-25, 28-42, 44-76, 79 and 80 remain pending in the application.

Claims 23-25, 28-33, 35-40, 42, 43, 45-63, 65, 70, and 72 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE et al. US 5,539,001 ("WALDMANN-LAUE") in view of HACHMANN et al. US 5,646,105 ("HACHMANN") and TU et al. WO 92/09309 ("TU"). This rejection is respectfully traversed.

WALDMANN-LAUE is offered for teaching disinfecting hard surfaces with an aromatic alcohol and an alkyl glycerol ether when $x=0$ and R_2 is a C_{6-22} alkoxyethyl group for $R_2-CH_2OH-(CH_2)_x-CH_2OH$ for formula II, as well as a salt and magnesium. WALDMANN-LAUE is also offered for teaching using either anhydrous or aqueous solutions for treatment with a weight ratio of aromatic alcohol to formula II of 9:1 to 1:9, which includes 0.11 as the lowest possible glycerol ether to aromatic alcohol ratio.

However, WALDMANN-LAUE fails to disclose or suggest the recited ratio of a method of disinfecting thermolabile materials

at a temperature greater than about 30°C with a composition as recited in claim 23.

HACHMANN is offered for teaching a disinfectant composition containing a disinfectant and an aromatic alcohol as a solubilizer, wherein the ratio of disinfectant to aromatic alcohol is about 1:0.5 to 1:0.07.

The position of the Official Action is that it would have been obvious to increase the amount of alcohol in the composition of WALDMANN-LAUE to arrive at the weight ratio recited in independent claim 23, i.e., 0.07 to 0.04 (for at least one 1- or 2-(C₃- to C₂₄-alkyl)glycerol ethers to at least one aromatic alcohol), as HACHMANN teaches a ratio that is effective in promoting stability of the disinfectant composition at low temperatures for extended periods of time.

However, HACHMANN fails to remedy the shortcomings of WALDMANN-LAUE for reference purposes.

For example, one of ordinary skill in the art would not have been encouraged to use a higher amount of solubizer, or aromatic alcohol, based on the teachings of HACHMANN. In fact, if anything, HACHMANN suggests that a lower amount may be possible. HACHMANN also discloses 3-30% of aromatic alcohol, but WALDMANN-LAUE discloses 10-30% of aromatic alcohol. See, e.g., column 1, lines 49-50 of HACHMANN and column 2, lines 43-46 of WALDMANN-LAUE.

Moreover, HACHMANN fails to disclose or suggest disinfecting thermolabile materials at a temperature greater than about 30°C.

TU is offered for teaching sterilization of hard surfaces, by submersion, with a glycidyl ether and aromatic alcohol mixture, "percent kill can usually be increased just by increasing the temperature of the solution and/or extending the sterilization time", and treatment temperature from room temperature to about 100°C.

However, TU also fails to remedy the shortcomings of WALDMANN-LAUE for reference purposes.

TU fails to disclose or suggest a) at least one 1- or 2-(C₃- to C₂₄-alkyl)glycerol ethers and b) at least one aromatic alcohol in a weight ratio of 0.07 to a weight ratio of 0.04 for a) to b). Additionally, TU fails to disclose or suggest that the method of WALDMANN-LAUE could be used for disinfecting thermolabile materials at a temperature greater than about 30°C.

Thus, the proposed combination cannot render obvious independent claim 23, and dependent claims 24, 25, 28-33, 35-40, 42, 45-63, 65, 70, and 72.

Therefore, withdrawal of the rejection is respectfully requested.

Claim 34 is rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of HACHMANN and TU,

further in view of LANGFORD US 5,906,802 ("LANGFORD"). This rejection is respectfully traversed.

WALDMANN-LAUE, HACHMANN and TU are offered for the reasons discussed above.

LANGFORD is offered for teaching alternating cycles of pressure and suction to assist in cleaning.

However, LANGFORD fails to disclose or suggest a ratio of glycol ether to aromatic alcohol as recited in claim 23, or disinfecting thermolabile materials at a temperature greater than about 30°C using the method of WALDMANN-LAUE. Thus, LANGFORD also fails to remedy the shortcomings of WALDMANN-LAUE and TU for reference purposes, and the proposed combination fails to render obvious claims 23 and 34.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 41 and 71 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of HACHMANN and TU, and further in view SAUD et al US 2004/0001797 ("SAUD"). This rejection is respectfully traversed.

WALDMANN-LAUE, HACHMANN and TU are offered for the reasons discussed above.

SAUD is offered for teaching a disinfecting composition that is sprayed and may comprises a glycerol ether, alcohol, and triclosan in combination.

However, SAUD fails to disclose or suggest the selecting weight ratio of independent claim 23, or disinfecting thermolabile materials at a temperature greater than about 30°C utilizing the method of WALDMANN-LUE. Thus, SAUD does not remedy the deficiencies of WALDMANN-LAUE for reference purposes, and the proposed combination fails to render obvious claims 23, 41 and 71.

Therefore, withdrawal of the rejection is respectfully requested.

Claim 44 is rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of HACHMANN and TU, further in view of MINER et al US 6,096,348 ("MINER"). This rejection is respectfully traversed.

WALDMANN-LAUE and TU are offered for the reasons discussed above.

MINER is offered for teaching that it is well known that endoscopes are difficult to sterilize due to their sensitivity to high temperatures and pressures.

However, MINER fails to disclose or suggest the selecting weight ratio of independent claim 23, or disinfecting thermolabile materials at a temperature greater than about 30°C utilizing the method of WALDMANN-LUE. Thus, MINER does not remedy the deficiencies of WALDMANN-LAUE for reference purposes, and the proposed combination fails to render obvious claims 23 and 44.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 64 and 66-68 are rejected under 35 USC 103(a) as being unpatentable over WALDMANN-LAUE in view of HACHMANN and TU, and further in view of EGGENSPERGER et al US 5,393,789 ("EGGENSPERGER"). This rejection is respectfully traversed.

WALDMANN-LAUE, HACHMANN and TU are offered for the reasons discussed above.

EGGENSPERGER is offered for teaching suitable aromatic alcohols used for antimicrobial compositions, such as phenyl ethanol, phenyl propanol, benzyl alcohol, phenoxyethanol, and phenoxypropanol, and oligoalkanol aryl ethers.

However, EGGENSPERGER fails to disclose or suggest the recited weight ratio of glycerol ether to such aromatic alcohols as recited in independent claim 23, or disinfecting thermolabile materials at a temperature greater than about 30°C utilizing the method of WALDMANN-LUE. Thus, EGGENSPERGER cannot remedy the shortcomings of WALDMANN-LAUE for references purposes, and the proposed combination fails to render obvious claims 23, 64, 66-68.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 73 and 74 are rejected under 35 USC 103(a) as being unpatentable over LANGFORD in view of WALDMANN-LAUE. This rejection is respectfully traversed.

LANGFORD is offered for teaching sterilizing a medical instrument by cleaning, disinfecting with a sterilant, rinsing with sterile water, and drying. The Official Action recognizes that LANGFORD fails to disclose (1) the use of an alkyl glycerol ether as the sterilant and (2) any specific sterilizing time. The Official Action nevertheless concludes that it would have been obvious to optimize the time the sterilant is in contact with the instrument depending upon the sterilant concentration, temperature and amount.

WALDMANN-LAUE is offered for teaching disinfecting hard surfaces with an aromatic alcohol and a glycerol ether having a C₆₋₂₂ alkoxymethyl group. The position of the Official Action is that because WALDMANN-LAUE is effective at low-temperatures, it would have been an obvious choice for the sterilization process of LANGFORD.

However, the proposed combination cannot teach the claimed invention.

Neither LANGFORD nor WALDMANN-LAUE disclose or suggest a disinfecting thermochemical treatment of a flexible endoscope at a temperature from about 90 to about 100°C in any time period, such as 1 to 20 minutes as recited in independent claim 73.

LANGFORD sterilizes a medical instrument, such as an endoscope, but provides no guidance for selecting thermochemical treatment including a particular time and temperature.

WALDMANN-LAUE discloses disinfection and preserving at room temperature. However, for the purpose of sterilization, i.e., destroying all bacteria and fungi, WALDMANN-LAUE requires greater than 3 days at room temperature (i.e. based on the sample times of 1, 3, 7, 14, and 21 days).

Thus, the combination teaches, at best, chemical treatment at room temperature for greater than 3 days.

Therefore, the proposed combination does not render obvious claims 73 and 74, and withdrawal of the rejection is respectfully requested.

Claims 73-80 are rejected under 35 USC 103(a) as allegedly being unpatentable over LANGFORD in view of WALDMANN-LAUE and TU. This rejection is respectfully traversed.

LANGFORD is offered for the reasons discussed above relative to the rejection of claims 73 and 74 above. The Official Action recognizes LANGFORD fails to teach a treatment time and temperature, such as 1 to 20 minutes at a disinfection temperature of from about 90 to about 100°C, as recited in claim 73.

WALDMANN-LAUE is offered for the reasons discussed above relative to the rejection of claims 73 and 74. However,

also as discussed above, WALDMANN-LAUE, at best, suggest more than 3 days at room temperature (i.e. based on the sample times of 1, 3, 7, 14, and 21 days) in order to sterilize, or destroy all bacteria and fungi.

TU is offered for teaching "percent kill can usually be increased just by increasing the temperature of the solution and/or sterilization time", and specifically that treatment of hard surfaces is generally maintained from room temperature to 100°C for 5 to 120 hours.

However, the proposed combination fails to teach the features of independent claim 73, i.e., thermochemical disinfection at a disinfection temperature of from about 90 to about 100°C from about 1 to about 20 minutes.

Indeed, TU teaches away from the claimed invention, as TU requires 5 to 120 hours for temperatures within the range of room temperature and 100°C. One of ordinary skill in the art would have been strongly discouraged from selecting 1-20 minutes treatment time for the sterilization for LANGFORD at a temperature of from about 90 to about 100°C when TU suggests no less than 5 hours, even at 100°C.

Thus, neither WALDMANN-LAUE nor TU can remedy the shortcomings of LANGFORD for reference purposes, and the proposed combination fails to render obvious independent claim 73 and dependent claims 75-80.

Therefore, withdrawal of this rejection is respectfully requested.

Claims 23-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 31-33, 37, and 51-53 of Application No. 10/445,715 in view of TU. This rejection is respectfully traversed.

Pursuant to MPEP 804 B, applicants respectfully request that the provisional double patenting rejection continue to be made until the provisional double patenting rejection is the only rejection remaining in at least one of the applications.

Claims 73-81 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting being unpatentable over claims 67-73, 75 and 80 of Application No. 10/825,266.

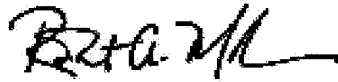
Pursuant to MPEP 804 B, applicants respectfully request that the provisional double patenting rejection continue to be made until the provisional double patenting rejection is the only rejection remaining in at least one of the applications.

In view of the amendment to the claims and the forgoing remarks, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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